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ORIGINAL

DIRECTORY

COMPLETED

COOPERATIVE FISHERY and WILDLIFE RESEARCH UNITS
1980

UNITED STATES DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE

72

ASSISTANCE DIRECTORY

COOPERATIVE FISHERY AND WILDLIFE RESEARCH UNITS

U.S. FISH AND WILDLIFE SERVICE

1980

Compiled by:

Charles R. Berry, Jr., Assistant Leader, Utah Cooperative Fishery Research Unit

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Revised by:

John G. Nickum, Leader, New York Cooperative Fishery Research Unit

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TABLE OF CONTENTS

INTRODUCTION . . . . i-ii

MAP OF UNIT LOCATIONS iii

Blue Section

COOPERATIVE FISHERY RESEARCH UNITS

Personnel i

Key to Fishery Unit Emphasis. . . . . ii-iii

Fishery Unit Descriptions 1-26

Green Section

COOPERATIVE WILDLIFE RESEARCH UNITS

Personnel i

Key to Wildlife Unit Emphasis . . . . ii-iii

Wildlife Unit Descriptions 1-20

Pink Section

COOPERATIVE FISHERY AND WILDLIFE RESEARCH UNITS

Fish and Wildlife Unit Descriptions 1-2

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INTRODUCTION

The purpose of this document is to highlight the expertise at each Cooperative Fishery and Wildlife Research Unit. This directory should be useful to the Fish and Wildlife Service, the State and university cooperators of each Unit, other Federal and State agencies, and private organizations responsible for fish and wildlife resources.

The Fish and Wildlife Service and predecessor agencies have participated in the Cooperative Unit Program since 1935. The Federal legislative mandate under which the Units operate lists research, graduate education and training, and technical assistance as the major functions of the program. Graduate education and training was the primary function of the Units for many years; however, the Service is now interested mainly in the research activities of the Units.

A Coordinating Committee, made up of representatives of the cooperating university, the State fish and game agency, and the Fish and Wildlife Service has the responsibility for approving the research direction and long-term general plans for each Unit. The Wildlife Management Institute (709 Wire Building, 1000 Vermont Avenue, N.W., Washington, D.C. 20005) is a formal cooperator of all Wildlife Units and a full-fledged member of these coordinating committees. Because it is a cooperative program, the Fish and Wildlife Service does not expect each Unit to be oriented only to Fish and Wildlife Service interests. However, the Service does expect each Unit to have a program that serves the mutual needs of the cooperators. This requires that each cooperating agency first set its priorities for informational needs, and that these then be integrated by Unit personnel into sequential research efforts. Input into each Unit Coordinating Committee is invited from all elements of the cooperating agencies. Within the Fish and Wildlife Service, this can be accomplished by Central Office representatives, by Regional and Area office personnel invited to each Coordinating Committee meeting, or directly by the Unit Leader.

Cooperative Units are not constrained by State or regional boundaries; all major projects, however, must have the concurrence of the Coordinating Committee.

The Units can provide liaison with university staff and can provide specialized training for agency employees, both by workshops and by temporary assignment of personnel of the Fish and Wildlife Service and personnel of other agencies to the Units. Units are flexible in their research activities. Most projects involving graduate students are designed for 2- to 4-year programs. Because of the flexible administrative framework, however, Units can provide additional services through employment of technicians and survey teams that can act as data-gathering bodies for specified projects of longer duration. Short-term assignments of Unit personnel to other Fish and Wildlife Service Divisions for consultation, project design, and program evaluation are some of the additional ways that Cooperative Units can provide assistance. They also provide one of the best contacts the Fish and Wildlife Service has with the State game and fish agencies.

The nationwide Unit effort is directed from the Washington Office. Units function within the program management system of the Fish and Wildlife Service; annual work plans are established for each Unit. Research projects requested by operating elements of the Fish and Wildlife Service must have funding allocations provided from the appropriate program. Fish and Wildlife Service funds allocated directly through the Cooperative Fishery and Wildlife Unit Program provide only salaries and minimal operating expenses; the Units do not have a blanket allocation from the Fish and Wildlife Service to support research activities. The cooperating agencies provide facilities and limited research funds. To supplement each Unit's research budget, Unit personnel often acquire outside grants from other Federal as well as private agencies.

This directory describes the unique aspects of each Unit. Support facilities and other special capabilities of cooperating institutions and agencies are presented, together with information on current research emphasis, and background information on personnel of each Unit.

At the time this directory was published, two new Units had been authorized by Congress and were in various stages of development. A new Wildlife Unit was being organized at the University of Georgia, Athens, and a new combined Fish and Wildlife Unit was being established at the University of Wyoming, Laramie. An addendum to this directory will be published when these Units are operational.

We invite comments on additional information that you would find useful for incorporation when we update this document. We feel that there is a wealth of talent located in the Unit Program--let us know how it may serve you and we will be most happy to assist you in tapping these resources.

PROGRAM SUPERVISION

The Units are supervised through the Office of Cooperative Research Units located in Washington, D.C. (202-343-4101) or FTS 8-343-4101).

Chief, Office of Cooperative Research Units
Dr. Rollin D. Sparrowe

Supervisor, Cooperative Fishery Research Units
Dr. Bernard L. Griswold

Supervisor, Cooperative Wildlife Research Units
Dr. Paul A. Vohs, Jr.

Staff Fish and Wildlife Biologist
Dr. Rebecca Field

Unit Secretary
Miss Amy Johnson

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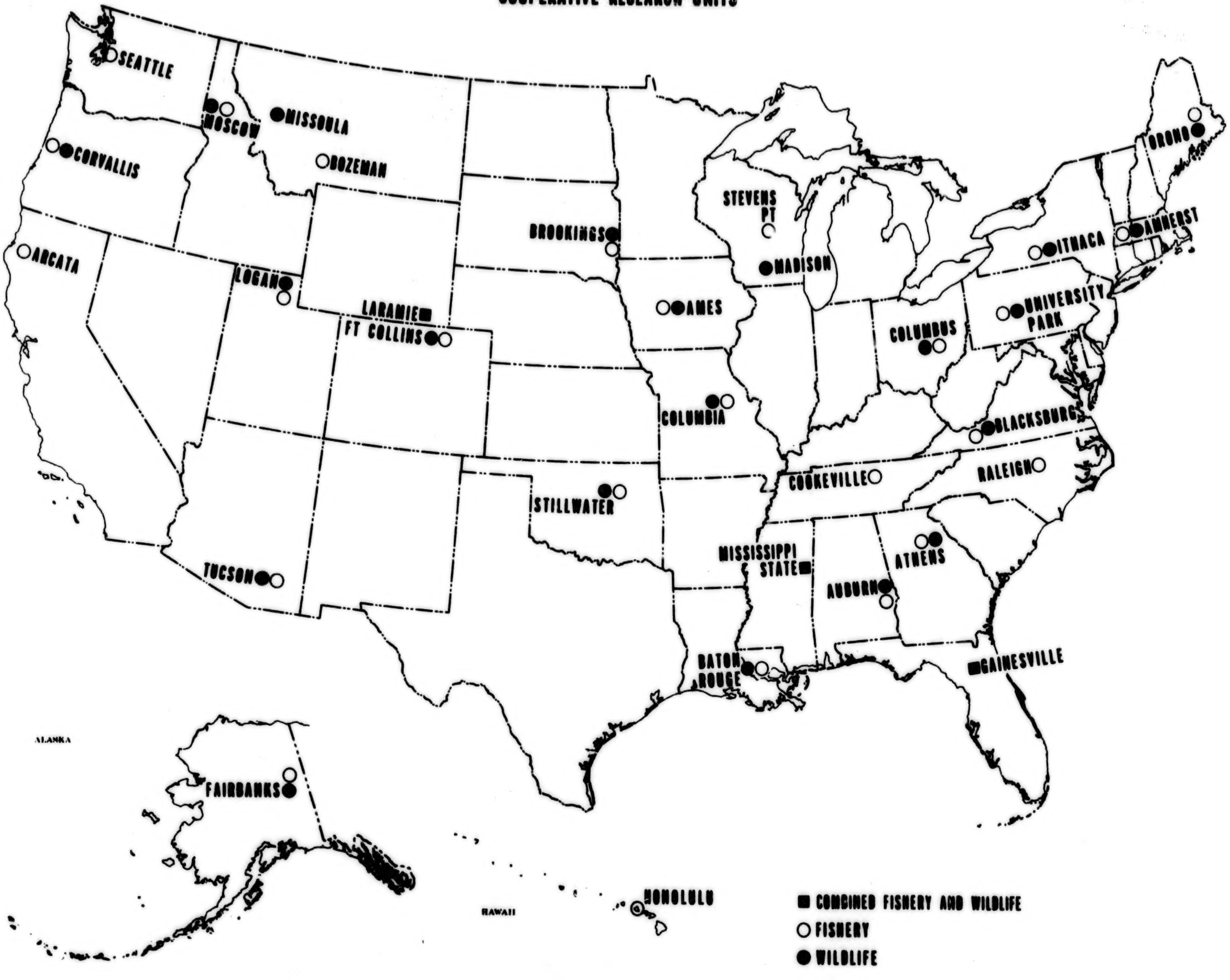
COOPERATIVE RESEARCH UNITS



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COOPERATIVE FISHERY RESEARCH UNITS

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PERSONNEL

COOPERATIVE FISHERY RESEARCH UNITS
U.S. FISH AND WILDLIFE SERVICE

ANDERSON, Richard O. - MO

APPLEGATE, Richard L. - SD

ARNOLD, Dean E. - PA

BARNHART, Roger A. - CA

BENDA, Robert S. - SD

BERGERSEN, Eric P. - CO

BERRY, Charles R., Jr. - UT

BJORNN, Theodore C. - ID

BOOKE, Henry, E. - WI

BRYAN, Charles F. - LA

BULKLEY, Ross V. - UT

BUTLER, Robert L. - PA

CARLINE, Robert F. - OH

CLADY, Michael D. - OK

COBLE, Daniel W. - WI

CONGLETON, James L. - WA

ESTES, R. Don - TN

GILBERT, Ronald J. - GA

GLOSS, Steven P. - NY

GOULD, William R. - MT

GREGORY, Richard W. - FL

HASSLER, Thomas J. - CA

HERKE, William H. - LA

HUBERT, Wayne A. - IA

HUISH, Melvin T. - NC

KERBY, J. Howard - NC

KYNARD, Boyd E. - MA

LI, Hiram W. - OR

MARGRAF, Joseph - OH

MAUGHAN, Eugene O. - OK

McCONNELL, William J. - CO

MORING, John R. - ME

MUNCY, Robert J. - MS

NEVES, Richard J. - VA

NICKUM, John G. - IA

PARDUE, Garland B. - VA

PARRISH, James D. - HI

PAULEY, Gilbert B. - WA

RABINI, Charles - MO

RAMSEY, John S. - AL

REYNOLDS, James B. - AK

SCHRECK, Carl B. - OR

SHELTON, William L. - AL

STANLEY, Jon G. - ME

TACK, Stephen L. - AK

TASH, Jerry C. - AZ

VAN DEN AVYLE, Michael - TN

WHITE, Robert G. - MT

WHITNEY, Richard R. - WA

ZIEBELL, Charles D. - AZ

KEY TO FISHERY UNIT EMPHASIS

The following key is intended as a reference to the major and unique areas of expertise within the Fishery Cooperative Unit System. Broad disciplines such as aquatic and fish ecology and fisheries management are found in each Unit. Likewise, each Unit has expertise in supportive areas such as water chemistry, benthic invertebrate surveys, limnology, and biometrics. Following is a list of major areas of expertise and the Unit number where that expertise is found.

- Anadromous fish 4, 8, 11, 12, 19, 25
- Angler
  - Regulations 8, 17, 25
  - Surveys 8, 12, 13, 14
- Aquatic productivity 20, 24
  - Benthic production 24
  - Energy flow 24
- Aquatic weed control 3, 23
- Behavior, fish 8, 9, 11, 12, 17, 19, 20, 23, 26
- Biological monitoring 5, 11
- Coastal ecosystems 1, 4, 6, 7, 10, 11, 12, 16, 19
- Culture 1, 3, 9, 13, 15, 16, 19, 20, 21, 26
  - Breeding 1, 16, 19, 26
  - Closed system 3
  - Diet development 1, 15
  - Invertebrate 15, 16
  - Sex reversal 1
  - Sterilization 11
- Dewatering, impact 14, 21, 23
- Early life history 2, 10, 15, 18, 22, 26
- Endangered species 1, 3, 18, 23
- Endocrinology 11, 19
- Energy, impact
  - Hydroelectric power 4, 8, 12, 16
  - Mining 9, 14, 21
- Estuarine studies 4, 6, 7, 10, 11, 12, 16, 25
- Farm ponds 6, 9, 13, 15, 16, 18, 24, 26
- Fish passage facilities 12
- Fish species
  - Atlantic salmon 11, 12
  - Bass (Centrarchidae) 6, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 22, 24, 26
  - Catfish 1, 6, 9, 10, 13, 16, 17, 18
  - Char 2, 3, 4, 5, 8, 11, 14, 15, 19, 20, 23, 24, 25, 26
  - Clupeids 3, 4, 11, 12, 16, 18, 22, 26
  - Drum 17, 18, 22
  - Grass carp 1, 6, 13
  - Grayling 2, 14, 23
  - Muskellunge 15, 17, 20, 21, 25
  - Pacific salmon 2, 4, 8, 19, 25
  - Paddlefish 13, 21
  - Perch-walleye 3, 11, 12, 14, 15, 17, 21, 22, 26
  - Pike 6, 11, 14, 17, 21, 26
  - Smelt 11, 12, 26
  - Striped bass 16, 18, 22, 24
  - Sturgeon 8, 22
  - Sunfishes (Centrarchidae) 1, 6, 9, 10, 11, 12, 13, 15, 16, 17, 18, 21, 22, 24, 26
  - Tilapia 1
  - Trout 2, 3, 4, 5, 8, 11, 12, 14, 15, 19, 20, 23, 24, 25, 26
  - Whitefish 23, 26
- Forest practices 4, 11, 24, 25
- Genetics 9, 11, 13, 16, 19, 23, 26
- Habitat
  - Alteration 5, 8, 9, 10, 11, 12, 14, 16, 17, 19, 20, 23, 24
  - Assessment 3, 10, 12, 18, 19, 24
  - Rehabilitation 13, 16, 24
- Health, fish
  - Disease 9, 19, 25
  - Immunology 19, 25
  - Physiology--stress 6, 11, 19, 26
  - Shellfish-disease 25

Highway construction, impact 14

Introduced species 1, 17, 18

Invertebrate studies
    Community structure 2, 10, 26
    Crayfish 1, 10, 17, 24
    Shrimp 4, 7, 10

Lakes
    Arctic 2
    Desert 3
    Great Lakes 20, 26
    Mountain 3, 23, 25
    Prairie 21

Limnology 3, 4, 7, 14, 21, 22

Management systems 5, 11, 12, 13, 22

Marine ecology 7

Marsh ecosystems 4, 10, 25

Methods research
    Fisherman surveys 8, 14
    Habitat assessment 3, 10, 12, 24
    Indicatory organisms 26
    Photography 20
    Population estimation 12, 13

Native claims 25

Nongame fish 4, 5, 6, 9, 10, 11, 13, 15, 16, 18, 22, 25, 26

Overflow habitat 10

Physiology 6, 11, 19, 26
    Parr-smolt transformation 8, 11, 19

Pollutants 3, 5, 6, 10, 11, 14, 15, 16, 19, 20
    Domestic waste 14
    Eutrophication 3, 12
    Metals 14, 15, 16
    Pesticides 9, 11, 16, 26
    Sedimentation 8, 14, 17
    Thermal 3, 14

Populations, fish
    Control 6, 11, 17, 23, 25
    Dynamics 2, 4, 6, 10, 21, 22, 26
    Modeling 5, 12, 18, 22

Predator/prey relation 12

Reproductive biology 1, 4, 11, 13, 16, 19, 26

Reservoirs 1, 3, 4, 5, 6, 12, 13, 17, 18, 22, 23, 24

Strain evaluation 11, 13, 16

Stream channelization 9, 12, 16, 17, 21 23, 24

Sociobiology 8, 13, 14, 17, 24

Systematics 1

Urban recreational fishery 15

Water resources policy 22

Watershed manipulation impact 3, 5, 8, 9, 10, 11, 12, 14, 16, 17, 19, 21, 23, 25, 26

Wild fish/domestic fish Interaction 8, 22, 24

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ALABAMA

Address:
Alabama Cooperative Fishery Research Unit
Fisheries Building
Auburn University
Auburn, Alabama 36830

Telephone:
Commercial 1-205-826-4786 Extensions 4 and 5
FTS 8-534-7700; ask for 205-826-4786

Personnel:
Leader - Dr. John S. Ramsey
Assistant Leader - Dr. William L. Shelton

Unit Emphasis:

1. Reservoir Dynamics
    - Year-class success
    - Expanding populations
    - Reasons for fishery decline
    - Fish movements
2. Fish Reproduction
    - Reproductive manipulation
    - Sex reversal
3. Endangered Species
    - Conservation status inquiry
    - Life history
    - Limiting factors
    - Management
4. Exotic Species
    - Aquarium fish importation
    - Impact appraisal
5. Fish Systematics
    - Distribution
    - Taxonomic status
    - Curatorial

Unique Aspects of Unit:

The Unit is in a rich faunistic area with more than 300 freshwater fish species within a 150-mile radius. A Unit responsibility is the curatorship of an ichthyological research collection with 14,000 catalogued lots and 200,000 specimens representing species of the Southeast and tropical fresh waters of the world.

Cooperators:

Auburn University (AU)
Auburn, Alabama 36830

Department of Conservation and Natural Resources
Division of Game and Fish
Montgomery, Alabama 36130

Unique Cooperator Support:

The Unit has access to more than 600 pond units, ranging from plastic pools to large farm ponds. Unit staff are among 25 professors and 8 research associates in the Auburn Department of Fisheries and Allied Aquaculture.

ALASKA

Address:
Alaska Cooperative Fishery Research Unit
University of Alaska
211 Irving Building
Fairbanks, Alaska 99701

Telephone:
Commercial 1-907-479-7661
FTS 8-399-0150; ask for 907-479-7661

Personnel:
Leader - Dr. James B. Reynolds
Assistant Leader - Position Vacant
State Supported Assistant Leader - Mr. Stephen L. Tack

Unit Emphasis:

1. Exploitation, dynamics, and management of freshwater fish populations
2. Life history and ecology of arctic and subarctic fishes and invertebrates

Unique Aspects of Unit:

Located in interior Alaska, the Unit has immediate access to many subarctic waters including large, glacial-runoff rivers like the Yukon and Tanana, smaller, clear-runoff streams such as the Chena, and numerous glacial and floodplain lakes. Arctic ecosystems north of the Brooks Range are also accessible for Unit research.

Cooperators:

University of Alaska (UAF)
Fairbanks, Alaska 99701

Alaska Department of Fish and Game
Juneau, Alaska 99801

Unique Cooperator Support:

The Alaska Department of Fish and Game provides funds for a full-time State Assistant Leader. The Arctic-Yukon-Kuskokwim Region of ADF&G aids Unit research with expertise and logistical support. The UAF provides the opportunity for cooperative research with the Alaska Cooperative Wildlife Research Unit, Alaska Cooperative Park Studies Unit, Institute of Arctic Biology, Institute of Water Resources, Institute of Marine Science, and Geophysical Institute.

ARIZONA

Address:

Arizona Cooperative Fishery Research Unit
210 Biological Sciences East
University of Arizona
Tucson, Arizona 85721

Telephone:

Commercial 1-602-626-1959
FTS 8-602-884-1959

Personnel:

Leader - Dr. Jerry C. Tash
Assistant Leader - Mr. Charles D. Ziebell

Unit Emphasis:

1. Aquatic Ecology
    - Food chains of desert and high mountain lakes
    - Zooplankton distribution
2. Water Quality/Fishery Relation
    - Watershed uses and eutrophication
    - Thermal and oxygen stratification
    - Closed system fish facilities
3. Fishery Management
    - Habitat evaluation
    - Ecosystem/fish adaptations
4. Endangered Aquatic Animals

Unique Aspects of Unit:

Diversified habitats ranging from low desert to high alpine regions enable study on aquatic habitats of lakes and streams within this wide elevation range.

Cooperators:

University of Arizona (UA)
School of Renewable Natural Resources
Tucson, Arizona 85721

Arizona Game and Fish Department
2222 West Greenway Road
Phoenix, Arizona 85023

Unique Cooperator Support:

The School of Renewable Natural Resources provides a combination of hydrology and watershed management expertise for cooperative research programs in fisheries and limnology.

CALIFORNIA

Address:
California Cooperative Fishery Research Unit
Humboldt State University
Arcata, California 95521

Telephone:
Commercial 1-707-826-3268
FTS 8-707-826-3268

Personnel:
Leader - Dr. Roger A. Barnhart
Assistant Leader - Dr. Thomas J. Hassler

Unit Emphasis:

1. Coastal Anadromous Fish
    - Habitat requirements
    - Logging/fish relationships
2. Estuaries
    - Spawning and rearing habitat
    - Fish population dynamics
3. Reservoirs
    - Life history and management
    - Limnology

Unique Aspects of Unit:

Coastal anadromous streams are located nearby, largely in redwood forests; also Humboldt Bay, a large estuary, empties into the Pacific Ocean a few miles from campus. Extensive field and laboratory equipment are available for fishery research.

Cooperators:

Humboldt State University (HSU)
Arcata, California 95521

California Department of Fish and Game
1416 Ninth Street
Sacramento, California 95814

Unique Cooperator Support:

The Unit has access to a fish hatchery on campus, a large State salmon and steelhead hatchery a few miles away, and the Humboldt State University marine science laboratory nearby. It works closely with the Humboldt Bay Wildlife Refuge and the U.S. Forest Service Pacific Southwest Forest and Range Experiment Station on campus.

COLORADO

Address:

Colorado Cooperative Fishery Research Unit
Colorado State University
102 Coop Units Building
Fort Collins, Colorado 80523

Telephone:

Commercial 1-303-491-6942
FTS 8-323-5235

Personnel:

Leader - Dr. William J. McConnell
Assistant Leader - Dr. Eric P. Bergersen

Unit Emphasis:

1. Impacts of Habitat Alteration
    - Pumped storage effects
    - Water and land-use practice effects on lake salinity
2. Fish Management
    - Productivity relations in lakes and microcosms
    - Operations planning system
3. Water Pollution - Biological Monitoring

Unique Aspects of Unit:

Because of its location on the Front Range of the Rocky Mountains, the Unit has access to a diversity of aquatic habitats, ranging from high mountain lakes and streams to large rivers and reservoirs on the Great Plains.

Cooperators:

Colorado Division of Wildlife
6060 Broadway
Denver, Colorado 80216

Colorado State University (CSU)
Department of Fishery and Wildlife Biology
Fort Collins, Colorado 80523

Unique Cooperator Support:

The Unit has access to the Colorado State University foothills campus fish culture pond facility and the State experimental fish hatchery in Bellvue, Colorado. The Colorado Division of Wildlife Fishery Research Center and facilities, in Fort Collins, provide expertise in fish nutrition, disease, systematics, ecology, and fish management.

GEORGIA

Address:

Georgia Cooperative Fishery Research Unit
School of Forest Resources
University of Georgia
Athens, Georgia 30602

Telephone:

Commercial 1-404-546-2234 or 542-5260
FTS 8-250-2234

Personnel:

Leader - Position Vacant
Assistant Leader - Dr. Ronnie J. Gilbert

Unit Emphasis:

1. Aquatic Pollution
   - Dynamics of contaminants in aquatic systems
   - Effects of environmental stress on fish
2. Basic Fish Physiology
3. Management of Small Impoundments
4. Fisheries Resources of Reservoirs
5. Fisheries Systematics
6. Riverine Fisheries Dynamics

Unique Aspects of Unit:

The facilities located near the Unit include Fort Gordon Military Base on which are 30 ponds from 3 to 150 acres that are ideal for pond management studies, and the U.S. Energy Research and Development Administration's Savannah River Plant on which a series of large cooling reservoirs offer excellent opportunities for thermal studies. The location of the Unit in northern Georgia provides for a wide range of aquatic habitats including cold- and warm-water reservoirs, rivers, and streams.

Cooperators:

University of Georgia (UG)
School of Forest Resources
Athens, Georgia 30602

Department of Natural Resources
Game and Fish Division
270 Washington Street, SW
Atlanta, Georgia 30334

Unique Cooperator Support:

The University's Whitehall Forest contains ponds and a fishery and wildlife research laboratory.

HAWAII

Address:
Hawaii Cooperative Fishery Research Unit
2538 The Mall, University of Hawaii
Honolulu, Hawaii 96822

Telephone:
Commercial 1-808-948-8350
FTS 8-556-0220; ask for 808-948-8350

Personnel:
Leader - Dr. James D. Parrish
Assistant Leader - Position Vacant

Unit Emphasis:

1. Ecology of Inshore Marine Communities
2. Ecology and Fishery Biology of Coastal Fishes
3. Trophic Ecology
4. Freshwater Ecosystems, Especially Streams
5. Theoretical Ecology and Species Interactions

Unique Aspects of Unit:

Tropical oceanic high and low islands provide a diversity of aquatic ecosystems with high degree of faunal endemism. Programs include field research in Pacific coral reefs and island streams. Fishery research is on tropical, multispecies, small-scale fishery.

Cooperators:

University of Hawaii (UH)
Hawaii Institute of Marine Biology
Honolulu, Hawaii 96822

Hawaii Department of Land and Natural Resources
Division of Fish and Game
1151 Punchbowl Street
Honolulu, Hawaii 96813

Unique Cooperator Support:

The Hawaii Institute of Marine Biology provides excellent field and laboratory facilities for coastal marine research at Coconut Island in Kaneohe Bay. A number of other University facilities and programs provide research opportunities for students.

IDAHO

Address:
Idaho Cooperative Fishery Research Unit
College of Forestry, Wildlife and Range Sciences
University of Idaho
Moscow, Idaho 83843

Telephone:
Commercial 1-208-885-6336
FTS 8-208-885-6336

Personnel:
Leader - Dr. Theodore C. Bjornn
Assistant Leader - Position Vacant

Unit Emphasis:

1. Fish Management and Ecology
    - Production and yield of anadromous salmonids
    - Wild trout in streams
    - Public preference surveys
    - Competition and predation
    - Special angling regulations
    - Habitat requirements
    - Parr-smolt transformation of salmon and steelhead
2. Evaluation of Habitat Alterations
    - Sediment in streams
    - Reduced streamflows
    - Impoundment of rivers
    - Peaking operations for hydro power

Unique Aspects of Unit:

The Unit is located in northern Idaho at the western edge of the primitive wilderness areas and adjacent to the Snake River which contains runs of chinook salmon and steelhead trout. Laboratory facilities at the University are adequate for research in fish behavior, fish culture, and fish diseases. The nearby Snake and Columbia rivers with their series of dams and impoundments provide unique opportunities to study developing fish populations in new reservoirs, as well as the impacts of impoundments on the up- and down-stream migration of anadromous fishes.

Cooperators:

University of Idaho (UI)
Moscow, Idaho 83843

Idaho Department of Fish and Game
Boise, Idaho 83707

Unique Cooperator Support:

Laboratory stream channels are provided at the Hayden Creek Research Station by the Idaho Fish and Game Department.

IOWA

Address: Iowa Cooperative Fishery Research Unit
Science Hall II, Iowa State University
Ames, Iowa 50011

Telephone: Commercial 1-515-294-3057
FTS 8-865-3057

Personnel: Leader - Dr. John G. Nickum
Assistant Leader - Dr. Wayne A. Hubert

Unit Emphasis:

1. Impact of Habitat Alteration in Midwest
    - Channelization
    - Pollution
    - Intensive agriculture
    - Pesticides
    - Coal energy
2. Fish Ecology and Management
3. Fish Behavior and Genetics
4. Fish Culture and Diseases

Unique Aspects of Unit:

The Unit's location at ISU facilitates early contact with research and developments that will affect future intensive agricultural trends. The Iowa Coal Project research (ISU Energy and Mineral Research Institute-ERDA) has developed a leadership role in midwest coal development. The Unit research with Iowa State Conservation Commission Fisheries Section in warmwater fish culture and management offers increased opportunities for Unit students.

Cooperators:

Iowa State University (ISU)
Ames, Iowa 50011

Iowa State Conservation Commission
State Office Building
300 Fourth Street
Des Moines, Iowa 50319

Unique Cooperator Support:

The ISU Energy and Mineral Resources Research Institute offers expert assistance in chemical and engineering technology for energy development and environmental impact assessment. ISU Computer Science and Statistical facilities are major resources for data analysis and storage. Iowa State Conservation Commission's new Rathbun Warmwater Hatchery offers a major research facility for intensive fish culture techniques with sport species.

LOUISIANA

Address:
Louisiana Cooperative Fishery Research Unit
Room 245, Agricultural Center
Louisiana State University
Baton Rouge, Louisiana 70803

Telephone:
Commercial 1-504-388-6051
FTS 8-687-4380

Personnel:
Leader - Dr. Charles F. Bryan
Assistant Leader - Dr. William H. Herke

Unit Emphasis:

1. Marsh and Estuarine Habitat
    - Juvenile life history of fishes and crustaceans
    - Population dynamics
2. Environmental Analysis
    - Habitat classification
    - Wetlands inventory, overflow habitat
    - Water quality/fisheries relation
3. Taxonomy of Larval Fishes

Unique Aspects of Unit:

The State is rich in lotic habitats; only five States have more inland waters. The Atchafalaya River Basin is the largest overflow habitat in North America. The Coastal marshes and estuaries are significant because of their vastness. Modern in situ water quality monitoring devices are available, as are appropriately modified shallow water research vessels. The Unit enjoys excellent working relations with a local field station of the U.S. Geological Survey and the Environmental Protection Agency. The Unit serves as a repository for a large collection of freshwater and estuarine larval fishes.

Cooperators:

Louisiana State University (LSU)
School of Forestry and Wildlife Management
Agricultural Experiment Station
Baton Rouge, Louisiana 70803

Louisiana Wildlife and Fisheries Commission
P.O. Box 44095
Capitol Station
Baton Rouge, Louisiana 70804

Unique Cooperator Support:

Facilities are available for the study of fish systematics and zoogeography, marine crustaceans, and frog-crayfish-catfish culture. A hatchery facility comprising wet lab and holding ponds, and more than 100 acres under water, is also available.

MAINE

Address:
Maine Cooperative Fishery Research Unit
Department of Zoology
313 Murray Hall, University of Maine
Orono, Maine 04469

Telephone:
Commercial 1-207-581-7151
FTS 8-207-581-7151

Personnel:
Leader - Dr. Jon G. Stanley
Assistant Leader - Dr. John R. Moring

Unit Emphasis:

1. Fishery Management
    - Atlantic salmon restoration
    - Forage organisms for anadromous and landlocked salmonids
2. Environmental analysis
    - Ecological effects of large-scale spruce budworm control program
    - Habitat for Atlantic salmon restoration
    - Ecology of log salvaging
    - Ecology of forest practices
3. Fish Physiology
    - Osmoregulation in migratory fish
    - Endocrinology of smoltification in salmonids
4. Fish Genetics
    - Behavioral genetics
    - Genetic sterilization
    - Polyploidy and genetic engineering

Unique Aspects of Unit:

The Unit is on the Penobscot River, a model river for Atlantic salmon restoration, and near two national fish hatcheries involved in rearing Atlantic Salmon. Large-scale salvaging of sunken logs in the Kennebec River have aquatic habitat impact. Warm- and cold-water lakes and streams and proximity to marine and estuarine environments offer many study opportunities. Craig Brook and Green Lake National Fish Hatcheries are nearby and personnel of the North American Salmon Research Center are on the University faculty.

Cooperators:

University of Maine (UM)
Orono, Maine 04473

Maine Department of Inland Fisheries and Wildlife
284 State Street
Augusta, Maine 04330

Unique Cooperator Support:

Close association with the Migratory Fish Research Institute at UM provides increased opportunity for interchange of ideas and data bearing on Atlantic salmon restoration.

MASSACHUSETTS

Address:
Massachusetts Cooperative Fishery Research Unit
204 Holdsworth Hall
University of Massachusetts
Amherst, Massachusetts 01003

Telephone:
Commercial 1-413-545-2011
FTS 8-413-545-2011

Personnel:
Leader - Position Vacant
Assistant Leader - Dr. Boyd E. Kynard

Unit Emphasis:

1. Impacts of Habitat Alteration
    - Channelization
    - Impoundment/streamflow control
    - Power plant effects
    - Agricultural nutrient enrichment
    - Fish passage facilities
2. Fish Ecology and Mangement
    - Population estimation
    - Assessment of habitat requirements
    - Predation studies
    - Reproductive behavior
3. Anadromous Fish
    - Migratory behavior
    - Reproduction and growth studies
4. Ecology of Coastal Ecosystems
    - Community studies
    - Trophic relationships
5. Systems Ecology
    - Modeling of ecological systems

Unique Aspects of Unit:

The Unit is within 5 miles of the Connecticut River, within 10 miles of the 25,000-acre Quabbin Reservoir (principal water supply for Boston), and 90 miles from Atlantic coastal environments. It is conveniently located near one of the Nation's largest American shad runs, near rivers where Atlantic salmon restoration is in progress, and within easy working distance of the largest fish-passage facilities--present and planned--on the East Coast.

Cooperators:

University of Massachusetts (UM)
Amherst, Massachusetts 01003

Massachusetts Department of Fishery, Wildlife and Recreational Vehicles: Division of Fisheries and Wildlife; Division of Marine Fisheries
Boston, Massachusetts 02202

Unique Cooperator Support:

The marine laboratory of the University at Gloucester provides extensive laboratory space with a running seawater system, docking facilities, and small vessel support.

MISSOURI

Address:
Missouri Cooperative Fishery Research Unit
Stephens Hall, University of Missouri
Columbia, Missouri 65201

Telephone:
Commercial 1-314-882-3524 and 882-3436
FTS 8-276-3198

Personnel:
Leader - Dr. Richard O. Anderson
Assistant Leader - Dr. Charles Rabini

Unit Emphasis:

1. Recreational Fishery Management (Impoundments)
    - Population dynamics
    - Stock assessment - electrofishing
    - Habitat enhancement
    - Outputs and benefits
2. Fish Husbandry
    - Feeding and growth
    - Reproduction
    - Production strategy and tactics
    - Evaluation of genetic stocks

Unique Aspects of Unit:

The Unit has a close working association with the U.S. Fish and Wildlife Service Columbia National Fishery Research Laboratory and the Research Section, Division of Fisheries, Missouri Conservation Department. The Unit is near several coal strip mine sites. Aquatic habitats near Columbia include several streams, the Missouri River, and many small and large impoundments.

Cooperators:

University of Missouri (UM)
School of Forestry, Fisheries, and Wildlife
Columbia, Missouri 65201

Missouri Department of Conservation
Division of Fisheries
P.O. Box 180
Jefferson City, Missouri 65101

Unique Cooperator Support:

Unique facilities for aquatic studies are available at the Little Dixie Fishery Research Area and at the University's Gaylord Wildlife Laboratory.

MONTANA

Address:
Montana Cooperative Fishery Research Unit
Biology Department
Montana State University
Bozeman, Montana 59717

Telephone:
Commercial 1-406-994-2450, 3491
FTS 8-406-994-2450

Personnel:
Leader - Dr. Robert G. White
Assistant Leader - Dr. William R. Gould, Jr.

Unit Emphasis:

1. Impact of Pollution
    - Heavy metals on aquatic insects and fish
    - Siltation on aquatic insects
    - Sewage on fish and aquatic insects
    - Thermal on aquatic insects
2. Impact of Stream Alteration
    - Highway and railroad construction
    - Stream dewatering and minimum flows
3. Estimation of Fishing Pressure and Harvest
4. Impacts of Surface Coal Mining
    - Water quality
    - Limnology - primary and secondary production
    - Fish populations and harvest
    - Fish reproduction in mine waste water

Unique Aspects of Unit:

The Unit is in an intermountain region with nearby research opportunities extending from high mountain lakes to reservoirs in semi-arid regions of eastern Montana. Extensive coal reserves in eastern Montana and projected development of this energy source provide almost unlimited research opportunities.

Cooperators:

Montana State University (MSU)
Bozeman, Montana 59717

Department of Fish and Game
1420 East 6th Street
Helena, Montana 59601

Unique Cooperator Support:

The Fish Cultural Development Center (U.S. Fish and Wildlife Service) offers potential laboratory and fish cultural facilities for disease and fish nutrition work. Decker Coal Company provides some research support, and a field laboratory at the Tongue River Reservoir is available for limnological and fishery studies associated with surface coal mining in eastern Montana.

NEW YORK

Address:
New York Cooperative Fishery Research Unit
Fernow Hall, Cornell University
Ithaca, New York 14853

Telephone:
Commercial 1-607-256-2151 and 1-607-256-2001
FTS 8-882-4251 and 8-882-4250

Personnel:
Leader - Position Vacant
Assistant Leader - Dr. Steven P. Gloss

Unit Emphasis:

1. Culture of Cool-water Fishes
    - Intensive culture of walleye
    - Pond culture of walleye and bait and forage fishes
    - Modeling of aquaculture systems
2. Use of Wastewater in Aquaculture
3. Sources and Management of Mortality in Early Life Stages of Freshwater Fishes
    - Effects of metals
    - Effects of organic ligands on metal toxicities
4. Urban Recreational Fisheries
5. Warmwater/Coolwater Fishery Management
    - Farm ponds and shallow lakes
    - Biological manipulation of fish populations

Unique Aspects of Unit:

The Unit is in the center of the Finger Lakes area of south-central New York; warm- and cold-water lakes, streams, and ponds are nearby. Wet lab facilities with 20 temperature-controlled aquaria are available. The Unit works cooperatively with the Tunison Laboratory of Fish Nutrition and National Fishery Research Laboratory (U.S. Fish and Wildlife Service, Wellsboro, Pennsylvania).

Cooperators:

Cornell University (Cornell)
Ithaca, New York 14853

New York Department of Environmental Conservation
Division of Fish and Wildlife
Albany, New York 12233

Unique Cooperator Support:

The Unit has access to a biological field station on Oneida Lake, research stations at Old Forge and Paul Smiths in the Adirondack region, an experimental spawning channel on Cayuga Lake, and fish disease diagnostic service through the College of Veterinary Medicine.

NORTH CAROLINA

Address:
North Carolina Cooperative Fishery Research Unit
Department of Zoology
Box 5577 State College Station
Raleigh, North Carolina 27607

Telephone:
Commercial 1-919-737-2631 and 755-4320
FTS 8-672-4320

Personnel:
Leader - Dr. Melvin T. Huish
Assistant Leader - Dr. J. Howard Kerby

Unit Emphasis:

1. Impacts of Habitat Alteration
    - Stream channelization
    - Power plant siting
    - Pesticide pollution
2. Aquaculture
    - Pond and cage culture of warmwater species
    - Laboratory rearing
    - Hybridization
    - Sperm preservation
    - Cytogenetics
    - Heritability of growth
3. Fish Ecology and Management
    - Life history and ecology of warmwater species
    - Farm pond management

Unique Aspects of Unit:

The Unit is centrally located between mountains to the west and the Atlantic Coast on the east with extensive estuaries and sounds. Extensive piedmont and swamp environments are also close by. Aquarium rooms and a large "pool" field containing more than 100 large, above-ground, plastic-lined swimming pools are available for experimental work. A 20-acre pond is used for work with cage culture.

Cooperators:

North Carolina State University (NCSU)
Raleigh, North Carolina 27607

North Carolina Wildlife Resources Commission
Raleigh, North Carolina 27611

Unique Cooperator Support:

The Unit has access to trout and warmwater hatchery facilities operated by the North Carolina Wildlife Resources Commission and the U.S. Fish and Wildlife Service. Transmissions and scanning electron microscope facilities are available at NCSU. The Unit enjoys an excellent working relationship with the Genetics and Statistics Departments as well as others at NCSU.

OHIO

Address:
Ohio Cooperative Fishery Research Unit
Department of Zoology, Ohio State University
1735 Neil Avenue
Columbus, Ohio 43210

Telephone:
Commercial 1-614-422-8961
FTS 8-943-7395

Personnel:
Leader - Dr. Robert F. Carline
Assistant Leader - Dr. Joseph Margraf

Unit Emphasis:

1. Impacts of Habitat Alteration
    - Stream channelization
    - Stream improvement
    - Hydraulic dredging of small lakes
2. Reservoir Management
    - Introduction of hybrid piscivores
    - Development of fish communities in new reservoirs
    - Exploitation of warmwater reservoir fishes
    - Experimental fishing regulations
3. Behavioral Ecology of Warmwater Fishes

Unique Aspects of Unit:

Lake Erie, major rivers, and reservoirs are readily accessible. Equipment and facilities are available for work on all types of waters plus wet lab. Extensive surface coal mining operations are nearby.

Cooperators:

Ohio State University (OSU)
Columbus, Ohio 43210

Department of Natural Resources
Division of Wildlife
Fountain Square
Columbus, Ohio 43224

Unique Cooperator Support:

Research facilities are available at Franz Theodore Stone Laboratory Put-in-Bay, Ohio, on Lake Erie; the facility is administered by the Center for Lake Erie Area Research (CLEAR). Various types and sizes of vessels are available for operation on large waters. The Unit actively cooperates with Ohio Department of Natural Resources work unit and the U.S. Fish and Wildlife Service Field Station of the Great Lakes Fisheries Laboratory, both at Sandusky, Ohio. The Ohio Biological Survey is located at the Columbus campus.

OKLAHOMA

Address:
Oklahoma Cooperative Fishery Research Unit
Room 433 Life Sciences West Building
Oklahoma State University
Stillwater, Oklahoma 74074

Telephone:
Commercial 1-405-624-6342
FTS 8-728-4440

Personnel:
Leader - Dr. O. Eugene Maughan
Assistant Leader - Dr. Michael D. Clady

Unit Emphasis:

1. Management of Year Class Strength
    - Manipulation of cove nursery areas
    - Polytypic spawning populations
    - Population simulation
    - Early life histories
2. Reservoir Ecology and Management
    - Fish distribution
    - Ecology of managed coves
3. Use of Nontraditional Predators in Pond Ecology and Management
4. Environmental Impact Assessment
    - Habitat evaluation
    - In-stream flows
5. Rare and Endangered Species

Unique Aspects of Unit:

The Unit is centrally located in Oklahoma which has the highest densit of upstream flood-prevention dams of any State. Two university and two municipal reservoirs available for research are nearby. The Unit owns 14 experimental ponds located near campus.

Cooperators:

Oklahoma State University (OSU)
Stillwater, Oklahoma 74074

Oklahoma Department of Wildlife Conservation
Oklahoma City, Oklahoma 73105

Unique Cooperator Support:

The University provides extensive facilities for destratification, bioassays, and behavioral studies of fishes.

OREGON

Address:

Oregon Cooperative Fishery Research Unit
Department of Fisheries and Wildlife
Oregon State University
Corvallis, Oregon 97331

Telephone:

Commercial 1-503-754-4531
FTS 8-425-4531

Personnel:

Leader - Dr. Carl B. Schreck
Assistant Leader - Dr. Hiram W. Li

Unit Emphasis:

1. Fish Biology
    - Stream alteration/habitat assessment
    - General fisheries management and ecology
    - Population dynamics of stream fish
    - Fish behavior and ecology
2. Fish Genetics
    - Population genetics
    - Biochemical genetics
3. Water Quality/Environmental Physiology
    - Stress physiology
    - Endocrinology
4. Fish Culture
    - Selective breeding
    - Physiology of growth
    - Disease resistance

Unique Aspects of Unit:

Proximity to ocean, coastal streams, major rivers, and desiccating basins; availability of anadromous and resident fish culture facilities; proximity to Western Fish Toxicology Laboratory, U.S. Fish and Wildlife Service.

Cooperators:

Oregon State University (OSU)
Corvallis, Oregon 97331

Oregon Department of Fish and Wildlife
Portland, Oregon 97201

Unique Cooperator Support:

Oregon Department of Fish and Wildlife maintains a laboratory in Corvallis and three nearby fish hatcheries. Also nearby is the Abernathy Salmon Cultural Center. The OSU Department of Fisheries and Wildlife operates the Oak Creek Laboratory of Biology where water quality, fish physiology, and toxicology studies are completed. The University's Marine Science Center and Smith Farm Hatchery are also available to the Unit. The OSU Department of Food Science and Nutrition operates the Fish Hepatoma Laboratory and the Sea Food Processing Laboratory where fish food and fish product development are carried out.

PENNSYLVANIA

Address:
Pennsylvania Cooperative Fishery Research Unit
328 Mueller Laboratory
University Park, Pennsylvania 16802

Telephone:
Commercial 1-814-865-6592
FTS 8-455-6592

Personnel:
Leader - Dr. Robert L. Butler
Assistant Leader - Dr. Dean E. Arnold

Unit Emphasis:

1. Fish Behavior
    - Environmental stress
    - Use of space and time
2. Use of Cinematography in Biological Studies
3. Manipulation of Aquatic Productivity
4. Effects of Water Quality on Aquatic Biota
5. Fish Management in Infertile Lakes and Streams

Unique Aspects of Unit:

The Unit is in proximity to a variety of aquatic habitats, polluted and pristine, fertile and sterile. It has access to a University-owned stream section and 78-acre lake, two large continuous-flow stream aquaria with environmental controls, and extensive cinematography equipment.

Cooperators:

The Pennsylvania State University (PSU)
University Park, Pennsylvania 16802

Pennsylvania Fish Commission
P.O. Box 1673
Harrisburg, Pennsylvania 17120

Unique Cooperator Support:

Several State and Federal hatcheries are close by, including Benner Spring Fish Research Station, the Lamar National Fish Hatchery and Fish Cultural Development Center. The University makes available expertise in ichthyology, hydrology, fish pathology, fish parasitology, and water chemistry.

SOUTH DAKOTA

Address:

South Dakota Cooperative Fishery Research Unit
Department of Wildlife and Fishery Sciences
South Dakota State University
Brookings, South Dakota 57006

Telephone:

Commercial 1-605-688-6121
FTS 8-605-688-6121

Personnel:

Leader - Dr. Richard L. Applegate
Assistant Leader - Dr. Robert S. Benda

Unit Emphasis:

1. Fishery Management
    - Limnology of prairie lakes
    - Ecological requirements of paddlefish
    - Fishery dynamics of cooling ponds
2. Fish Culture
    - Rearing muskellunge in cooling ponds
    - Methods for hatching and rearing paddlefish
    - Intensive culture of muskellunge
3. Impact of Habitat Manipulation
    - Energy development
    - Flood control
    - Irrigation

Unique Aspects of Unit:

The Unit is in the northern prairies where productive lakes are a reflection of the rich, intensively farmed land. Unique opportunities are available for the study of limnology of wetlands. Warm- and cool-water fisheries are found in prairie lakes, the Missouri River and in the Black Hills. A wet laboratory and ponds are available for experimentation as are laboratory facilities for chemical and biological analyses. The Unit has the use of a 370-acre cooling pond for a steam electric station near Big Stone Lake.

Cooperators:

South Dakota State University (SDSU)
Brookings, South Dakota 57006

South Dakota Department of Game, Fish and Parks
Pierre, South Dakota 57501

Unique Cooperator Support:

Gavins Point National Fish Hatchery for facilities to hatch and rear paddlefish, and the South Dakota Water Resources Research Institute water quality laboratory are nearby.

TENNESSEE

Address:
Tennessee Cooperative Fishery Research Unit
Tennessee Technological University
Biology Department, Box 5063
Cookeville, Tennessee 38501

Telephone:
Commercial 1-615-528-4194 (Leader); or 528-4130 (Assistant Leader)
FTS 8-615-528-4194

Personnel:
Leader - Dr. R. Don Estes
Assistant Leader - Dr. Michael Van Den Avyle

Unit Emphasis:

1. Reservoir Fisheries
    - Population dynamics, modeling
    - Fish biology (larval fishes, food habits, movement)
    - Management strategies
    - Limnology
2. General Fishery Biology/Management
3. Water Resource Policy and Management

Unique Aspects of Unit:

The Unit is near large Tennessee Valley Authority and U.S. Army Corps of Engineers reservoirs, smaller impoundments, cool- and warm-water streams, mountain trout streams, and large rivers. Extensive field equipment is available, especially for reservoir research. A biological station on reservoir offers excellent support facilities.

Cooperators:

Tennessee Technological University (TTU)
Cookeville, Tennessee 38501

Tennessee Wildlife Resources Agency
Ellington Agricultural Center
P.O. Box 40747
Nashville, Tennessee 37204

Unique Cooperator Support:

Extensive facilities are available for bioassays, aquatic macroinvertebrates, water quality, and fish physiology studies. The Unit pursues strong cooperative effort with personnel at Oak Ridge National Laboratory, Tennessee Valley Authority, Tennessee Wildlife Resources Agency, Great Smoky Mountains National Park, Ecological Services Field Office, and others. Many cooperative studies are conducted with the Department of Civil Engineering, Tennessee Technological University.

UTAH

Address:
Utah Cooperative Fishery Research Unit
Department of Wildlife Science, UMC 52
Utah State University
Logan, Utah 84322

Telephone:
Commercial 1-801-750-2509
FTS 8-750-2509

Personnel:
Leader - Dr. Ross V. Bulkley
Assistant Leader - Dr. Charles R. Berry, Jr.

Unit Emphasis:

1. Impacts of Habitat Alteration
   - In-stream flow
   - Channelization
   - Grazing
   - Water Pollution
   - Reservoir construction
2. Evaluation of Trout Strains
3. Fish Ecology and Management
   - Threatened and endangered fish
   - Control of undesirable species

Unique Aspects of Unit:

The Unit is centrally located in an intermountain region noted for its energy resources and arid nature. Warm- and cold-water reservoir, stream, and high mountain lake fisheries are nearby. The Unit has access to extensive wet lab facilities with a stamina tunnel, respirometers, and temperature-regulated water flow.

Cooperators:

Utah State University (USU)
Logan, Utah 84322

Department of Natural Resources
Division of Wildlife Resources
Salt Lake City, Utah 84116

Unique Cooperator Support:

The Unit has access to the nearby Fishery Experiment Station for fish culture and disease research; the Utah Water Research Laboratory for hydrologic experimentation, where there is a laboratory flume with underwater observation facilities; and the Bear Lake Research Station for limnological and fishery studies. The Unit has a good working relationship with the USU Department of Range Science.

VIRGINIA

Address:

Virginia Cooperative Fishery Research Unit
Virginia Polytechnic Institute and State University
106 Cheatham Hall
Blacksburg, Virginia 24061

Telephone:

Commercial 1-703-961-7294 or 961-5927
FTS 8-937-6260

Personnel:

Leader - Dr. Garland B. Pardue
Assistant Leader - Dr. Richard J. Neves

Unit Emphasis:

1. Impact of Habitat Manipulation
    - Channelization
    - Stream improvement and repair
    - Forest management practices
2. Impact of Management Techniques
    - Stocking hatchery fish on wild populations
    - Striped bass and farm ponds
3. Fish Management
    - Age and growth of game fishes
    - Spawning and fecundity of native brook trout
    - Population dynamics and movement of native brook trout
4. Aquatic Productivity
    - Benthic productivity
    - Energy flow relationships

Unique Aspects of Unit:

The Unit is near river systems draining into the Atlantic Ocean and the Mississippi River with warm, cold, and mid-range fishery habitats. One of the two natural lakes in Virginia, and numerous man-made reservoirs are nearby.

Cooperators:

Virginia Polytechnic Institute and State University (VPI & SU)
Blacksburg, Virginia 24061

Commission of Game and Inland Fisheries
P.O. Box 11104
Richmond, Virginia 23230

Unique Cooperator Support:

The University maintains fishery laboratories with photoperiod and temperature control, a living stream facility, a fish culture facility, and a field station with experimental ponds. The Unit closely cooperates with the Cooperative Wildlife Research Unit, and has a cooperative relationship with the VPI Center for Environmental Studies which specializes in industrial pollution effects.

WASHINGTON

Address:
Washington Cooperative Fishery Research Unit
College of Fisheries WH-10
University of Washington
Seattle, Washington 98195

Telephone:
Commercial 1-206-543-6475
FTS 8-206-543-6475

Personnel:
Leader - Dr. Richard B. Whitney
Assistant Leader - Dr. Gilbert B. Pauley
Special Unit Assistant - Dr. James L. Congleton

Unit Emphasis:

1. Recreational Fisheries
    - Fisheries management
    - Population management and assessment
    - Gear and tackle use
    - Effects of weed control
2. Public Service
    - Technical Advisor to U.S. District Court
    - Court-appointed Chairman, Fisheries Advisory Board
3. Fish Health
    - Fish pathology, immunology, parasitology
    - Shellfish pathology
4. Fish Ecology
    - Estuarine areas
    - Lakes

Unique Aspects of Unit:

The Unit is centrally located between Puget Sound, a saltwater estuary, and Lake Washington, the second largest freshwater lake in the State of Washington.

Cooperators:

University of Washington (UW)
Seattle, Washington 98195

Washington Department of Fisheries
Olympia, Washington 98504

Washington Department of Game
Olympia, Washington 98504

Unique Cooperator Support:

The Unit enjoys a working relationship with the Seattle National Fishery Research Center (U.S. Fish and Wildlife Service) and the Northwest National Marine Fisheries Service Laboratory, both near the College of Fisheries. The College of Fisheries has 43 faculty members with special expertise in many areas of fisheries biology.

WISCONSIN

Address:

Wisconsin Cooperative Fishery Research Unit
College of Natural Resources
University of Wisconsin
Stevens Point, Wisconsin 54481

Telephone:

Commercial 1-715-346-2178
FTS 8-715-346-2178

Personnel:

Leader - Dr. Daniel W. Coble
Assistant Leader - Dr. Henry E. Booke

Unit Emphasis:

1. Fish Genetics
    - Population analysis by biochemical means
    - Selective breeding
    - Cytosystematics
2. Fish Physiology
    - Effects of herbicides and pesticides
    - Blood chemistry
3. Ecology and Behavior
    - Trout streams
    - Warmwater fish management
4. Population Dynamics
    - Collection and analysis of vital statistics
    - Lake, pond, and river management
5. Invertebrates as Indicator Organisms

Unique Aspects of Unit:

The Unit is centrally located in the Sand County region between Great Lakes and Mississippi River watersheds. Wet lab and hatchery facilities are 7 miles from campus. The Unit is housed in a 4-year-old, $4.5 million research and teaching facility.

Cooperators:

University of Wisconsin (UW-SP)
Stevens Point, Wisconsin 54481

Wisconsin Department of Natural Resources
Box 7921
Madison, Wisconsin 53707

Unique Cooperator Support:

The National Fishery Research Center (U.S. Fish and Wildlife Service) is at La Crosse, 120 miles west; the Wisconsin Department of Natural Resources Coldwater Research Group is 20 miles east; several State and Federal hatcheries are within a few hours' drive.

COOPERATIVE WILDLIFE RESEARCH UNITS

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PERSONNEL

COOPERATIVE WILDLIFE RESEARCH UNITS
U.S. FISH AND WILDLIFE SERVICE

ANDERSON, David R. - UT
ANTHONY, Robert G. - OR
BALL, I. J. (Joe) - MT
BART, Jon - OH
BASKETT, Thomas S. - MO
BISSONETTE, John A. - OK
BIZEAU, Elwood G. - ID
BOOKHOUT, Theodore A. - OH
DAHLGREN, Robert B. - IA
DODGE, Wendell E. - MA
GIPSON, Philip S. - AK
HILL, Edward P. - AL
HORNOCKER, Maurice G. - ID
KLAAS, Erwin E. - IA
KLEIN, David R. - AK
LINDER, Raymond L. - SD
LINDZEY, Frederick G. - UT
MALECKI, Richard A. - NY
McGINNES, Burd S. - VA
MESLOW, E. Charles - OR
NEWSOM, John D. LA
O'GARA, Bart W. - MT
RICHMOND, Milo E. - NY
RUSCH, Donald H. - WI
RUSSELL, Kenneth R. - CO
SAMSON, Fred B. - MO
SCHITOSKEY, Frank, Jr. - SD
SEITZ, William K. - CO
SHERBURNE, James A. - ME
SMITH, Norman S. - AZ
SOWLS, Lyle K. - AZ
SPEAKE, Daniel W. - AL
STORM, Gerald L. - PA

KEY TO WILDLIFE UNIT EMPHASIS

The following key is intended to be a reference to the major and unique areas of expertise within the Wildlife Cooperative Unit System. Broad research disciplines such as wildlife habitat management and animal ecology are available at all Units and therefore not listed. Following is a list of major areas of expertise and the Unit number where that expertise is found.

- Animal damage control 7, 12, 17
- Aquatic mammals 1, 9
- Behavior 3, 9, 11, 13, 14, 16
- Big game 1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 14, 15, 16, 17, 18, 19
  - Antelope 11
  - Bear 5, 16, 18
  - Caribou 2
  - Deer 1, 3, 4, 5, 6, 7, 11, 15, 18, 19
  - Elk 4, 5, 11
  - Goat 11, 15
  - Leopard 5
  - Moose 2, 4, 11
  - Mountain lion 4, 5, 11
  - Sheep 5, 11, 15
- Coastal ecosystems 8, 9
- Endangered species 5, 10, 13, 17, 18
- Energy impacts 4
  - Hydropower 5
  - Mining 1, 13, 18, 19, 20
  - Nuclear power 13
  - Oil-gas 2, 11
  - Oil shale 18
- Fire, use, effects 1, 12
- Forest practices 1, 8, 11, 12, 16, 19
- Fur bearers 1, 5, 7, 8, 16, 17, 18, 19
  - Badger 5, 18
  - Beaver 1
  - Ferret 17
  - Martin 5
  - Otter 1
  - Rabbit 1, 16, 19
- Grassland ecosystem 17
- Habitat classification 2, 3, 7, 9, 10, 12, 14
- Management Systems 4, 10
- Marsh ecosystems 7, 9, 12
- Methods research 2, 9, 11, 17, 18, 20
  - Banding analysis 18
  - Capture-recapture 18
  - Impact assessments 20
  - Line transect sampling 18
  - Remote sensing 2, 9, 11, 17, 18
- Migratory birds 1, 5, 6, 7, 8, 10, 12, 13, 14, 15, 17, 18, 20
  - Cranes 3, 5
  - Doves 8, 11
  - Waterfowl 1, 3, 5, 6, 8, 10, 11, 12, 13, 14, 15, 17, 18, 20
- Native claims 2
- Nongame
  - Birds 1, 5, 6, 8, 10, 12, 15, 19, 20
  - Mammals 1, 2, 3, 6, 11, 12, 18, 19
- Nutrition 3, 19
- Off-road vehicles, impact 6
- Old-field habitat 12
- Peccary 3
- Physiology 9, 11, 12, 16, 19
- Pollutants, effects 6, 8, 12
  - Heavy metals 13
  - PCB 13
  - Pesticides 6, 17
- Population dynamics 4, 12, 18, 20
- Population regulation 9, 18
- Predators 2, 5, 8, 9, 11, 14, 15, 16, 18
  - Badger 5, 18
  - Bobcat 1, 5, 11
  - Coyotes 2, 11
  - Fox 2, 18
  - Wolverine 5
- Raptors 3, 5, 15, 20
- Reproductive biology 3, 13

Reptiles 1

Reservoirs, impact 8

Seabirds 8, 9, 13

Sewage waste disposal, impact 16

Shorebirds 5, 12, 13

Small mammals 1, 3, 5, 7, 8, 10, 12, 17, 18, 19, 20
  Badger 5, 18
  Beaver 1
  Ferret 17
  Martin 5
  Otter 1
  Rabbit 1, 16, 19
  Skunk 12
  Vole 12, 19

Sociobiology 6, 14, 17

Stream channelization 6, 13

Ungulates 1, 2, 3, 5, 7, 11, 15, 18, 19
  Antelope 11
  Caribou 2
  Deer 1, 3, 4, 5, 7, 11, 15, 18, 19
  Elk 4, 5, 11
  Goat 11, 15
  Moose 2, 4, 11
  Reindeer 2
  Sheep 5, 11, 15

Upland birds 1, 4, 6, 8, 12, 14, 16, 17, 20
  Grouse 12, 16, 20
  Partridge 6
  Pheasant 4, 6, 17
  Quail 1, 4, 6
  Turkey 1, 6, 12, 16

ALABAMA

Address:

Alabama Cooperative Wildlife Research Unit
Auburn University
Wildlife Building
Auburn, Alabama 36830

Telephone:

Commercial 1-205-826-4796
FTS 8-534-4509

Personnel:

Leader - Dr. Daniel W. Speake
Assistant Leader - Dr. Edward P. Hill, III

Unit Emphasis:

1. Mammal, Upland Game Bird, and Reptile Ecology and Management
    - Wild turkey
    - Bobwhite quail
    - River otter
    - Snakes
    - Rabbits
    - White-tailed deer
    - Beaver
    - Bobcat
2. Forestry Practices and Management Related to Wildlife
    - White-tailed deer
    - Beaver
    - Wild turkey
    - Controlled burning
    - Quail foods
3. Impact of Coal Strip Mines on Wildlife Habitat
    - Songbirds
    - Waterfowl

Unique Aspects of Unit:

Research opportunities are available in a variety of ecological situations from Gulf coastal marsh to deciduous hardwood forests of the mountains. Large tracts of private wildlife preserves in the pine forests and mixed forests of the Coastal Plain are available to the Unit as research study areas.

Cooperators:

Auburn University (AU)
Auburn, Alabama 36830

Game and Fish Division
Alabama Department of Conservation and Natural Resources
64 North Union Street
Montgomery, Alabama 36104

Unique Cooperator Support:

The Alabama Pesticide Laboratory is available for pesticide monitoring and residue analyses. The Auburn University Department of Poultry Science and the Auburn University School of Veterinary Medicine cooperate in studies on wildlife diseases. Other departments and schools ranging from Forestry to Fisheries and Allied Aquaculture are cooperators.

ALASKA

Address:

Alaska Cooperative Wildlife Research Unit
University of Alaska
209 Irving Building
Fairbanks, Alaska 99701

Telephone:

Commercial 1-907-479-7673
FTS 8-399-0150; ask for 907-479-7673

Personnel:

Leader - Dr. David R. Klein
Assistant Leader - Dr. Philip S. Gipson

Unit Emphasis:

1. Responses of Wildlife and Their Habitats to Changes in Land Use
    - Oil and gas development
    - Changing land status resulting from the Alaska Statehood Act, the Alaska Native Claims Settlement Act, and other legislation affecting land ownership and administration
2. Habitat Assessment
3. Ungulate Ecology and Management Emphasizing Caribou-Reindeer, Moose, and Muskoxen and Their Range Relationships
4. Predator Ecology and Systematics

Unique Aspects of Unit:

The Unit is in the interior of Alaska. Ecosystems are available for research ranging from arctic and alpine tundra to coastal forests. Oil and gas exploration, oil field development, and pipeline construction provide a unique opportunity to study the impact of such undertakings.

Cooperators:

University of Alaska (UA)
Fairbanks, Alaska 99701

Alaska Department of Fish and Game
Subport Building
Juneau, Alaska 99801

Unique Cooperator Support:

Staff of the Interior and Arctic Regional Office of the Alaska Department of Fish and Game and the wildlife staff of the Arctic Wildlife Range work closely with Unit personnel. The Alaska Cooperative Park Studies Unit, Institute of Arctic Biology, Institute of Northern Forestry, and the Naval Arctic Research Laboratory are available for cooperative research.

ARIZONA

Address:

Arizona Cooperative Wildlife Research Unit
214 Biological Sciences Building (East)
University of Arizona
Tucson, Arizona 85721

Telephone:

Commercial 1-602-626-1193
FTS 8-626-1193

Personnel:

Leader - Dr. Lyle K. Sowls
Assistant Leader - Dr. Norman S. Smith

Unit Emphasis:

1. Waterfowl Ecology (in high mountain meadows)
2. Reproductive Ecology of Wild Mammals
3. Ecology of Ungulates (deer, pecarry)
4. Behavior of Ungulates
5. Nutrition of Desert Mammals
6. Ecology of Desert Habitats
7. Ecology of Desert and Lower Mountain Riparian Areas
8. Ecology of Wintering Sandhill Cranes
9. Effects of Man-made Barriers (canals, etc.) on Wildlife
10. Artificial Areas and their Use by Wildlife in Desert Areas
11. Effect of Grazing Density on Rodent and Raptor Population
12. Wildlife History (Southwest United States)

Unique Aspects of Unit:

The Unit is near a variety of habitats of the Southwest. Desert shrub and grassland, oak-pine woodland, ponderosa pine, mixed conifer forest, and riparian and Gulf of California are nearby. University facilities in School of Renewable Natural Resources are available.

Cooperators:

University of Arizona (UA)
Tucson, Arizona 85721

Arizona Game and Fish Department
2222 West Greenway Road
Phoenix, Arizona 85023

Unique Cooperator Support:

The Department of Arid Lands: Dendochronology Lab, Three Bar Wildlife Area, Santa Rita Experimental Range, and the Arizona-Sonora Desert Museum are available.

COLORADO

Address:

Colorado Cooperative Wildlife Research Unit
Colorado State University
Coop Units Building
Fort Collins, Colorado 80523

Telephone:

Commercial 1-303-491-5396
FTS 8-323-5224

Personnel:

Leader - Dr. Kenneth R. Russell
Assistant Leader - Dr. William K. Seitz

Unit Emphasis:

1. Impact of Energy Development on Wildlife Populations
    - Impact assessment
    - Mitigation planning
    - Management goal alternatives
2. Habitat Evaluation
    - Pattern recognition
    - Composite mapping
3. Population Ecology and Management
    - Pheasants
    - Bobwhite
    - Mountain lion
    - Moose
    - Elk
    - Deer
4. Management Information Systems

Unique Aspects of Unit:

The Unit is centrally located on the Front Range of the Rocky Mountains, close to a wide variety of ecological situations ranging from shortgrass prairie to arctic alpine. Energy and mineral development activities include coal, oil shale, molybdenum, and phosphate. Colorado State University has training and research facilities for work on waterfowl, wildlife radiobiology, population dynamics, and systems ecology.

Cooperators:

Colorado State University (CSU)
Fort Collins, Colorado 80523

Colorado Division of Wildlife
317 Prospect Street
Fort Collins, Colorado 80521

Unique Cooperator Support:

The Unit has access to the Natural Resources Ecology Laboratory for simulation modeling and macrohabitat work, and the Colorado Division of Wildlife Research Facility for all types of wildlife research. It is near the U.S. Fish and Wildlife Service Western Energy and Land Use Team, and the Project Impact Evaluation Team, Ecological Services. Working relationships are good with various University departments.

IDAHO

Address:

Idaho Cooperative Wildlife Research Unit
College of Forestry, Wildlife, and Range Sciences
University of Idaho
Moscow, Idaho 83843

Telephone:

Commercial 1-208-885-6434 or 6435
FTS 8-208-885-6434 or 6435

Personnel:

Leader - Dr. Maurice G. Hornocker
Assistant Leader - Mr. Elwood G. Bizeau

Unit Emphasis:

1. Predator Ecology and Management
    - Mountain Lion
    - Bobcat
    - Leopard
    - Bears
    - Wolverine
    - Badger
    - Pine marten
    - Raptors
2. Endangered Wildlife - Whooping Crane
3. Nongame Bird Ecology and Management
    - Greater sandhill crane
    - Great blue heron
4. Waterfowl Ecology and Management
    - Western Canada goose
    - Wood duck
5. Ungulate Ecology and Management
    - Mule deer
    - Rocky mountain elk
    - Bighorn sheep
6. Impact of Energy Development on Wildlife
    - Hydropower project effects
    - Base-line inventory of vertebrates

Unique Aspects of Unit:

The Unit is near major wilderness areas and on the edge of the Palouse Prairie in northern Idaho. The College of Forestry, Wildlife and Range Sciences, University of Idaho, has excellent research facilities and a strong staff of range, forestry, and wildlife personnel capable of independent and interdisciplinary research on all species of western wildlife.

Cooperators:

University of Idaho (UI)
College of Forestry, Wildlife and Range Sciences
Moscow, Idaho 83843

Idaho Department of Fish and Game
600 South Walnut
Boise, Idaho 83707

Unique Cooperator Support:

Another university complex (Washington State University) is located only 8 miles away.

IOWA

Address: Iowa Cooperative Wildlife Research Unit
Science Hall II
Iowa State University
Ames, Iowa 50011

Telephone: Commercial 1-515-294-3056
FTS 8-865-3056

Personnel: Leader - Dr. Robert B. Dahlgren
Assistant Leader - Dr. Erwin E. Klaas

Unit Emphasis:

1. Big Game Ecology and Management
2. Public Attitudes towards Hunting and Wildlife Management, and Interfaces between Sociology and Wildlife Management
3. Impacts of Off-Road Vehicles on Wildlife and Habitat
4. Waterfowl Ecology and Management
5. Impacts of Stream Channelization on Riparian Habitats and Wildlife Diversity
6. Effects of Environment Contaminants on Wildlife
7. Upland Game and Nongame Birds, Ecology and Management

Unique Aspects of Unit:

The Unit is situated in intensively farmed land between two large river systems, the Missouri and the Mississippi. These rivers and their drainage systems are important migratory routes for waterfowl and raptors. Eagles winter along both rivers.

Cooperators:

Iowa State University (ISU)
Ames, Iowa 50011

Iowa Conservation Commission
300 Fourth Street
Des Moines, Iowa 50319

Unique Cooperator Support:

Located nearby and available for Unit research are the Iowa Conservation Commission Research Station; U.S. Department of Agriculture, National Animal Disease Laboratory; College of Veterinary Medicine; Veterinary Medical Research Institute; Energy Research and Development Administration, Ames Laboratory and Nuclear Reactor facility. A close working relationship is maintained with various University departments with research in wildlife diseases, bioenergetics, population dynamics, predator-prey relationships, and avian biology.

LOUISIANA

Address:

Louisiana Cooperative Wildlife Research Unit
School of Forestry and Wildlife Management
Louisiana State University
Baton Rouge, Louisiana 70803

Telephone:

Commercial 1-504-388-4131
FTS 8-687-0404

Personnel:

Leader - Mr. John D. Newsom
Assistant Leader - Position Vacant

Unit Emphasis:

1. Habitat Evaluation and Manipulation
2. Marsh and Swamp Ecology
3. Game Animal Ecology
    - White-tailed deer
    - Migratory birds
    - Small mammals
4. Environmental Impact Assessment
5. Animal Damage Control

Unique Aspects of Unit:

The Unit is near several broad ecosystems: upland pine hardwoods, bottomland hardwoods, coastal prairie, and coastal marsh. The extensive coastal marsh and freshwater swamp areas are diverse and highly productive and offer research opportunities unavailable anywhere else in North America. Louisiana State University has training and research facilities for work on pesticides, population dynamics, ecosystem modeling, wildlife physiology, pathology, parasitology, and environmental assessment.

Cooperators:

Louisiana State University (LSU)
Baton Rouge, Louisiana 70803

Louisiana Wildlife and Fisheries Commission
400 Royal Street
New Orleans, Louisiana 70130

Unique Cooperator Support:

Excellent working relationships exist with University departments, including School of Veterinary Medicine; Departments of Experimental Statistics, Entomology, Veterinary Science, Botany and Plant Pathology; Soil Testing Laboratory; and the Agricultural Experiment Station. Also work is conducted with the Louisiana Department of Agriculture (pesticide analysis), U.S. Department of Agriculture (research facilities), and with ES and OBS (Coastal Ecosystems Team) at Bay St. Louis, Mississippi (impact assessment).

MAINE

Address: Maine Cooperative Wildlife Research Unit
240 Nutting Hall
University of Maine
Orono, Maine 04469

Telephone: Commercial - 1-207-581-2639
FTS 8-207-581-2639

Personnel: Leader - Dr. James A. Sherburne
Assistant Leader - Position Vacant

Unit Emphasis:

1. Forest-Wildlife Relations
    - Predator/prey complexes
    - Furbearers
    - Big game species
    - Nonmigratory upland birds
2. Migratory Birds and Coastal Ecosystems
    - Waterfowl
    - Colonial nesting seabirds
    - Migratory upland birds
3. Plant-Animal Chemical Interactions
    - Natural chemical feeding deterrents
    - Environmental contaminants
4. Environmental Assessment
    - Forest-cutting practices
    - Reservoir impacts
    - Habitat evaluation procedures

Unique Aspects of Unit:

Since Maine is 90 percent forested and forest products are a major component of the State's economy, research on forest-wildlife is emphasized in the Unit program. Waterfowl are likewise emphasized because of a unique opportunity for studies of both coastal and freshwater habitats.

Cooperators:

University of Maine (UMO)
Orono, Maine 04473

Maine Department of Inland Fisheries and Wildlife
284 State Street
Augusta, Maine 04333

Unique Cooperator Support:

Supplemental support is provided by several State and Federal Agencies, especially in the Division of Law Enforcement of Region 5, Fish and Wildlife Service; Division of Biological Services, Fish and Wildlife Service; Maine Department of Transportation; U.S. Forest Service; and U.S. Army Corps of Engineers.

MASSACHUSETTS

Address:
Massachusetts Cooperative Wildlife Research Unit
Holdsworth Hall
University of Massachusetts
Amherst, Massachusetts 01003

Telephone:
Commercial 1-413-545-2757
FTS 8-413-545-2757

Personnel:
Leader - Dr. Wendell E. Dodge
Assistant Leader - Position Vacant

Unit Emphasis:

1. General Wildlife Ecology
2. Reproductive Physiology
3. Wetlands Classification
4. Predator Biology and Population Regulation
5. Aquatic Mammal Ecology and Behavior
6. Remote Sensing
7. Coastal Seabird Population Research

Unique Aspects of Unit:

The Unit is in western central Massachusetts 100 miles inland from metropolitan Boston. The area has a highly diversified habitat and fauna with increasing demand for nonconsumptive wildlife management. Eighteen hundred miles of tidewater provides excellent opportunity for coastal resource research.

Cooperators:

University of Massachusetts (UM)
Amherst, Massachusetts 01003

Massachusetts Division of Fisheries and Wildlife
Leverett Saltonstall Building
100 Cambridge Street
Boston, Massachusetts 02202

Unique Cooperator Support:

Photogrammetric time-lapse forest ecology and forest-wildlife economics, animal science and reproductive physiology laboratory, Quabbin Reservoir with limited access lands available to wildlife research, U.S. Forest Service Gifford Pinchot Institute for urban wildlife and habitat research, and other University departmental cooperators from agricultural research-engineering, biotelemetry, electronics, animal science, and botany-zoology.

MISSOURI

Address:
Missouri Cooperative Wildlife Research Unit
112 Stephens Hall
University of Missouri
Columbia, Missouri 65201

Telephone:
Commercial 1-314-882-3436
FTS 8-276-3198

Personnel:
Leader - Dr. Thomas S. Baskett
Assistant Leader - Dr. Fred B. Samson

Unit Emphasis:

1. Assessment of Water Resource Development on Wildlife Habitat - Development and Testing of Habitat Evaluation Procedures
2. Migratory Bird Biology and Management
   - Mourning dove
   - Waterfowl
3. Nongame and Endangered Species
4. Upland Deciduous Forest and Tall grass Prairie
   - Identification and evaluation of natural areas
   - Management systems for wildlife and other resources

Unique Aspects of Unit:

Located in central Missouri, the Unit has access to upland deciduous forests, lowland forests, prairie habitats, as well as many types of agricultural lands. Different water types including major rivers, impoundments, streams, and associated marshes are within reasonable distances.

Cooperators:

University of Missouri (UM)
Columbia, Missouri 65201

Missouri Conservation Department
1110 College Avenue
Columbia, Missouri 65201

Unique Cooperator Support:

The Missouri Department of Conservation Research Center and Charles Green Wildlife Area offer broad support and facilities for wildlife research. The Dalton Research Center emphasizes environmental physiology. The Environmental Trace Substances Center provides pollutant analysis. The Unit has access to the facilities and staff of the Gaylord Memorail Wildlife Laboratory, the Ashland Wildlife Research Area (University), and the U.S. Forest Service Experiment Station. Graduate fellowship funds are provided by the Edward K. Love Conservation Foundation.

MONTANA

Address:
Montana Cooperative Wildlife Research Unit
107 Health Sciences
University of Montana
Missoula, Montana 59812

Telephone:
Commercial 1-406-243-5372
FTS 8-585-3128

Personnel:
Leader - Dr. Bart W. O'Gara
Assistant Leader - Dr. I. J. (Joe) Ball

Unit Emphasis:

1. Physiology, Behavior, and Ecology of Native Ungulates
2. Management of Ungulates in Relation to Logging and Energy Development
3. Predator/Prey Relationships in Natural and Agricultural Areas
    - Mountain lion
    - Coyotes
    - Bobcats
4. Waterfowl Ecology and Management
5. Radiotelemetry Application

Unique Aspects of Unit:

The Unit is at the hub of three major valleys in the mountains of Western Montana close to the habitats of seven native ungulates and three large carnivores, with the National Bison Range and Glacier National Park nearby. Energy developments include gas and oil exploration on national forest lands.

Cooperators:

University of Montana (UM)
Missoula, Montana 59812

Montana Fish and Game Department
1420 East 6th Street
Helena, Montana 59601

Unique Cooperator Support:

The Unit enjoys a close working relationship with University departments of botany, zoology, and forestry.

NEW YORK

Address:
New York Cooperative Wildlife Research Unit
Fernow Hall, Cornell University
Ithaca, New York 14853

Telephone:
Commercial 1-607-256-2014
FTS 8-882-4214

Personnel:
Leader - Dr. Milo E. Richmond
Assistant Leader - Dr. Richard A. Malecki

Unit Emphasis:

1. Old Field Habitat Management
2. Freshwater Wetlands
3. Fire Ecology
4. Animal Damage Control
5. Reproductive Physiology
6. Small Mammal Population Dynamics
7. Waterfowl Ecology and Management
8. Habitat Evaluation
9. Assessment of Environmental Contaminants

Unique Aspects of Unit:

The Unit is near northeastern glacial marshes and muckland hardwood forests, northern hardwood and mixed coniferous forests, and orchards and secondary succession areas.

Cooperators:

Cornell University (CU)
Ithaca, New York 14853

New York Department of Environmental Conservation
50 Wolf Road
Albany, New York 12233

Unique Cooperator Support:

The CU offers expertise in wildlife diseases (College of Veterinary Medicine); terrestrial and aquatic community ecology (Division of Biological Sciences); and bioenergetics and nutrition (Departments of Natural Resources and Animal Sciences). Facilities are available at the Ithaca Game Farm and Connecticut Hill Wildlife Area.

OHIO

Address:

Ohio Cooperative Wildlife Research Unit
The Ohio State University
1735 Neil Avenue
Columbus, Ohio 43210

Telephone:

Commercial 1-614-422-6112
FTS 8-943-7418

Personnel:

Leader - Dr. Theodore A. Bookhout
Assistant Leader - Dr. Jon Bart

Unit Emphasis:

1. Ecology of Environmental Degradation
    - Strip-mining
    - Stream channelization
    - Nuclear power plant sitings
    - Heavy metals and PCB's
2. Ecology and Management of Lake Erie Avifauna
    - Waterfowl
    - Herons
    - Rails
3. Ethology and Reproductive Biology of Birds and Mammals
4. Endangered Species

Unique Aspects of Unit:

The Unit is near the western edge of Appalachian Plateau and the eastern edge of an intensive cash grain farming area of the Midwest. Lake Erie marshes are nearby. High human population (11 million) and density present problems not shared by most other Wildlife Units. The Ohio Unit owns gas chromatographs, a pulse height analyzer, a liquid scintillation system, and an atomic absorption spectrophotometer for assays of biological samples.

Cooperators:

The Ohio State University (OSU)
Columbus, Ohio 43210

Ohio Division of Wildlife
Fountain Square, Building C
Columbus, Ohio 43224

Unique Cooperator Support:

The Winous Point Shooting Club provides financial support and facilities for marsh-oriented research on Lake Erie; the Sandusky Bird Laboratory (Patuxent Wildlife Research Center, U.S. Fish and Wildlife Service) cooperates in research on blackbird bioenergetics; and the OSU furnishes a bird research laboratory for maintaining caged birds.

OKLAHOMA

Address:

Oklahoma Cooperative Wildlife Research Unit
404 Life Sciences West
Oklahoma State University
Stillwater, Oklahoma 74074

Telephone:

Commercial 1-405-624-6340
FTS 8-728-4385

Personnel:

Leader - Position Vacant
Assistant Leader - Dr. John A. Bissonette

Unit Emphasis:

1. Big Game Ecology and Management
2. Upland Game Ecology and Management
3. Habitat Classification and Evaluation
4. Migratory Birds (especially wintering aspects)
5. Sociological Interactions and Wildlife
6. Behavior of Canids
7. Colonial Nesting Birds

Unique Aspects of Unit:

Oklahoma provides a mixture of habitats and terrain that blends the southeastern coniferous and deciduous forests with the tall- and short-grass prairies of the Great Plains. Several wildlife refuges are available as study sites including the unique Wichita Mountains National Wildlife Refuge. Oklahoma is second among the States in total surface acres of water contained in ponds, lakes, and reservoirs and has more miles of inland shoreline than any other State. The water resources provide opportunities for studies of waterfowl and shorebirds and many water-related problems in conservation.

Cooperators:

Oklahoma State University (OSU)
Stillwater, Oklahoma 74074

Oklahoma Department of Wildlife Conservation
1801 North Lincoln
Oklahoma City, Oklahoma 73105 (405-521-3851)

Unique Cooperator Support:

A 2,550-acre tract of post oak/blackjack oak habitat type is available for study of game and nongame wildlife species. The University has a library rated as one of the best in the Southwest. The Colleges of Veterinary Medicine, Engineering, Agriculture, and Arts and Sciences all have faculty with expertise in subject areas related to wildlife problems such as behavior, systems ecology, biometry, wildlife disease, and sociobiology.

OREGON

Address:
Oregon Cooperative Wildlife Research Unit
Oregon State University
104 Nash Hall
Corvallis, Oregon 97331

Telephone:
Commercial 1-503-754-4531
FTS 8-425-4531

Personnel:
Leader - Dr. E. Charles Meslow
Assistant Leader - Dr. Robert G. Anthony

Unit Emphasis:

1. Wildlife in Relation to Land Management
    - Nongame birds and habitat use
        - Bald eagles
        - Raptors
        - Cavity nestors
    - Mammalian predators
    - Waterfowl management
2. Population Studies of Sensitive Big Game
    - Mountain goat
    - Bighorn sheep
    - Columbian white-tailed deer

Unique Aspects of Unit:

The geographic location of Corvallis provides the Unit with easy access to the varied ecological regions of the State. The Unit is especially well located for marine research. Because of the importance of the timber industry in the Northwest, major emphasis at the Oregon Unit has been devoted to forest birds and the impact of timber management practices on their status.

Cooperators:

Oregon State University (OSU)
Corvallis, Oregon 97331

Oregon Department of Fish and Wildlife
P.O. Box 3503
Portland, Oregon 97208

Unique Cooperator Support:

The Unit is housed in the Department of Fisheries and Wildlife; this provides an orientation toward water resource problems. OSU is designated a Sea Grant University and operates a well-equipped Marine Science Center at Newport, Oregon. A strong working relationship exists with the U.S. Forest Service--both the National forest system and Forest and Range Experiment Station.

PENNSYLVANIA

Address:
Pennsylvania Cooperative Wildlife Research Unit
The Pennsylvania State University
113 Ferguson Building
University Park, Pennsylvania 16802

Telephone:
Commercial 1-814-865-4511
FTS 8-455-1515

Personnel:
Leader - Position Vacant
Assistant Leader - Dr. Gerald L. Storm

Unit Emphasis:

1. Impacts of Terrestrial Disposal of Sewage Waste Water
2. Black Bear
    - Ecology, behavior
    - Interaction with humans
3. Habitat Management
    - Turkey productivity and behavior
    - Grouse
    - Cottontail rabbit
4. Predator-Prey System Energetics

Unique Aspects of Unit:

The location of the Unit in a forest and farm area in a State with a high human population and industrial output provides excellent opportunity for studying the impacts and results of the collision course between land uses, conservation, and the management of renewable natural resources. Facilities for a large captive deer herd and smaller holding facilities for other animals are available. Federated sportsmen and the hunting public have good working relationships.

Cooperators:

The Pennsylvania State University (PSU)
University Park, Pennsylvania 16802

The Pennsylvania Game Commission
Harrisburg, Pennsylvania 17120

Unique Cooperator Support:

Computer, statistical, and laboratory facilities are available from the University. The Unit has access to over 1 million acres of State game lands and has the support of nearly 200 field personnel. The Unit collaborates on an intensive bear research program.

SOUTH DAKOTA

Address:

South Dakota Cooperative Wildlife Research Unit
Department of Wildlife and Fisheries Sciences
South Dakota State University
Brookings, South Dakota 57006

Telephone:

Commercial 1-605-688-6121
FTS 8-605-688-6121

Personnel:

Leader - Dr. Raymond L. Linder
Assistant Leader - Dr. Frank Schitoskey, Jr.

Unit Emphasis:

1. Ecology of Grassland Ecosystems
    - Energetic relationships
    - Habitat selection
    - Ecology of the black-footed ferret
2. Wildlife/Agriculture Relationships
    - Pheasant management
    - Animal damage
    - Pesticides
3. Waterfowl Management
    - Remote sensing
    - Public attitudes toward wildlife

Unique Aspects of Unit:

The Unit is in the prairie pothole region close to tall-, short-, and mixed-grass prairies, and close to areas to be developed for coal mining and utilization. It is in an area containing a large number of wildlife refuges and waterfowl production areas.

Cooperators:

South Dakota State University (SDSU)
Brookings, South Dakota 57006

South Dakota Department of Game, Fish and Parks
Sigurd Anderson Building
Pierre, South Dakota 57501

Unique Cooperator Support:

Facilities available at SDSU include the Department of Rural Sociology for studies of public attitudes toward wildlife, the University Pesticides Lab, Veterinary Science Department, and Environmental Remote Observation Satellite Remote Sensing Lab; also nearby is the Rapid City Station of the Rocky Mountain Forest and Range Experiment Station.

UTAH

Address:
Utah Cooperative Wildlife Research Unit
Utah State University, UMC 52
Logan, Utah 84322

Telephone:
Commercial 1-801-750-7466
FTS 8-801-750-2466

Personnel:
Leader - Dr. David R. Anderson
Assistant Leader - Dr. Frederick G. Lindzey

Unit Emphasis:

1. Population Ecology of Migratory Birds
2. Impact of Energy Development on Fauna and Flora
3. Endangered Species
4. Biology and Ecology of Big Game Animals
5. Line Transect Sampling Schemes
6. Theoretical Ecology
7. Optimal Exploitation Theory
8. Quantitative Ecology
9. Capture-Recapture Experiments
10. Analysis Methods for Banding Data
11. Waterfowl Ecology
12. Remote Sensing to Estimate Deer Populations
13. Predator Ecology and Management

Unique Aspects of Unit:

The Unit is located in the Great Basin, where nearby ecosystems include inland freshwater and saline marshlands, pinyon-juniper woodlands, coniferous deciduous forest and sage-grasslands. Research includes the impacts of energy development, sampling and analysis techniques, large mammal biology, endangered species, and studies of migratory bird populations.

Cooperators:

Utah State University (USU)
Logan, Utah 84322

Utah Division of Wildlife Resources
1596 West North Temple
Salt Lake City, Utah 84116

Unique Cooperator Support:

USU has 47 departments, a large School of Graduate Studies, and University Extension. Cooperators include the Utah Center for Water Resource Research, the Electro-Dynamics Laboratory, Utah Water Research Laboratory, Ecology Center, Desert Biome (IBP), Computer Center, Poisonous Plant Laboratory, Forest Sciences Laboratory, Institute for the Study of Outdoor Recreation and Tourism, the Institute for Land Rehabilitation, the Green Canyon Behavioral Research Laboratory, and the Unit of Predator Studies.

VIRGINIA

Address:

Virginia Cooperative Wildlife Research Unit
100 Cheatham Hall
Virginia Polytechnic Institute and State University
Blacksburg, Virginia 24061

Telephone:

Commercial 1-703-961-5573
FTS 8-937-6260

Personnel:

Leader - Dr. Burd S. McGinnes
Assistant Leader - Position Vacant

Unit Emphasis:

1. Disturbance Impact on Wildlife Habitat-Silvicultural Treatments
2. Forest Wildlife Ecology and Management
    - Deer nutrition and physiology
    - Range productivity
3. Small Mammal Ecology and Management
    - Cottontail rabbit
    - Pine voles
    - Diseases and parasites of small mammals
4. Songbird Ecology and Management in the Urban Environment

Unique Aspects of Unit:

The Unit is in Ridge Valley Province in southwestern Virginia's Appalachians, close to Jefferson and George Washington National Forests. Physiographic regions include coastal plain, piedmont, and mountains.

Cooperators:

Virginia Polytechnic Institute and State University (VPI & SU)
Blacksburg, Virginia 24061

Virginia Commission of Game and Inland Fisheries
4010 West Broad Street
Richmond, Virginia 23230

Unique Cooperator Support:

The Unit is situated with the Virginia Cooperative Fisheries Research Unit. The University provides deer, squirrel, cottontail, and bird holding facilities, and scanning electron microscope and physiology laboratories. A cooperative relationship exists with University departments such as forestry, agronomy, statistics, physics, engineering, and biology. Working arrangements exist with the Game Commission, Jefferson National Forest, and the National Park Service on public lands and agency facilities. University departmental research emphasizes reproductive physiology, computer simulation, systems analysis, population dynamics, contaminants, modeling, and energy flow in habitats.

WISCONSIN

Address:

Wisconsin Cooperative Wildlife Research Unit
University of Wisconsin
226 Russell Laboratories
Madison, Wisconsin 53706

Telephone:

Commercial 1-608-263-6882, 608-263-6882
FTS 8-262-2671

Personnel:

Leader - Dr. Donald H. Rusch
Assistant Leader - Position Vacant

Unit Emphasis:

1. Distribution and Abundance of Wildlife Species
    - Canada geese
    - Ruffed grouse
2. Population Ecology and Management of Migratory Birds
    - Canada geese
    - Coots
    - Redhead ducks
3. Techniques for Impact Assessments
    - Indices to bird numbers
    - Indices to mammal numbers
    - Impacts of mining in northern Wisconsin

Unique Aspects of Unit:

The location in southern Wisconsin provides access to a variety of ecosystems and environments including the Great Lakes, remnant prairies, boreal forests, and oak-hickory woodlands. Agriculture, forestry, and outdoor recreation are major businesses in the Great Lakes region, and all of these conflict or interact with wildlife species and habitats. The quantification and evaluation of these interactions is a major thrust of the Unit Program.

Cooperators:

University of Wisconsin (UW)
Madison, Wisconsin 53706

Wisconsin Department of Natural Resources
Box 450
Madison, Wisconsin 53701

Unique Cooperator Support:

Expertise at the UW include population dynamics, population ecology, northern forest ecosystems, and pesticide-wildlife relationships in Department of Wildlife Ecology; wildlife diseases in Veterinary Science; ecosystem dynamics and energetics in Botany and Zoology departments; and resource economics and natural resource planning in School of Natural Resources. Programs are offered in waterfowl ecology, wildlife on agricultural lands, and forest-wildlife relationships; programs on threatened and endangered species are being developed. The National Fish and Wildlife Health Laboratory, U.S. Fish and Wildlife Service, is nearby.

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COOPERATIVE FISHERY AND WILDLIFE RESEARCH UNITS

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FLORIDA

Address:

Florida Cooperative Fish and Wildlife Research Unit
117 Newins-Ziegler Hall
University of Florida
Gainesville, Florida 32611

Telephone: Commercial 1-904-392-1861

Personnel:

Leader - Dr. Richard W. Gregory
Assistant Leader - Position Vacant
Staff Biologist - Position Vacant

Unit Emphasis:

1. Aquatic and Terrestrial Disturbances on Fish and Wildlife
    - Forestry practices
    - Phosphate mining
    - Water diversion and land drainage
    - Agricultural (citrus) practices
2. Aquatic Productivity and Fish Populations
    - Nutrients
    - Nuisance aquatic plants
    - Exotic fish impacts
3. Large Mammal Ecology and Management
4. Wetlands Ecology - Aquatic/Terrestrial Interface
5. Coastal Colonial Bird Habitat

Unique Aspects of Unit:

Florida has 1,600 miles of coastal shoreline and is characterized by a unique and fragile ecosystem not duplicated elsewhere in the contiguous 48 states. Included are sub-tropical forest, range and sawgrass ecosystems and substantial populations of endangered flora and fauna. The rapid population growth places a heavy demand on the aquatic and terrestrial resources; development in southern Florida is increasing the interest in the abundant water resources of the northern portion. Phosphate mining operations also require large quantities of water.

Cooperators:

School of Forest Resources and Conservation
University of Florida (UF)
Gainesville, Florida 32611

Florida Game and Fresh Water Fish Commission
620 South Meridian Street
Tallahassee, Florida 32304

Unique Cooperator Support:

The Game and Fresh Water Fish Commission has recently completed a well-equipped wildlife research laboratory nearby and the School is currently constructing an aquatic weed control center on the University campus.

MISSISSIPPI

Address:

Mississippi Cooperative Fish and Wildlife Research Unit
Dorman Hall, Box BX
Mississippi State University
Mississippi State, Mississippi 39762

Telephone: Commercial 601-325-2643; 2647

Personnel:

Leader - Dr. Robert J. Muncy
Assistant Leader - Position Vacant
Project Leader - Position Vacant

Unit Emphasis:

1. Bottomland Habitat and Riparian Ecosystems
2. Warm Water Stream Fisheries and Water Quality

Unique Aspects of Unit:

The Mississippi Unit is the first combined Fish and Wildlife Unit and as such will direct research efforts toward broad ecological problems associated with bottomland habitats in Mississippi River and Gulf of Mexico drainage systems. Cooperating staff members at Mississippi State University and associated State and Federal agencies represent a wide spectrum of research expertise.

Cooperators:

Mississippi State University (MSU)
Mississippi Agricultural and Forestry Experiment Station
Department of Wildlife and Fisheries
Mississippi State, Mississippi 39762

Mississippi Department of Wildlife Conservation
Bureau of Fisheries and Wildlife
P.O. Box 451
Jackson, Mississippi 39205

Unique Cooperator Support:

Mississippi Department of Wildlife Conservation support major cooperative deer and furbearer research programs with Mississippi State University in addition to basic Unit support. U.S. Corps of Engineers is funding water quality and fisheries studies on Tombigbee River bendway cutoffs.

END

6-14-82